

REMARKS/ARGUMENTS

Claims 1-28 have been resubmitted. No claims have been amended. No claims have been added. No claims have been canceled.

The Examiner allowed Claims 1-15 and 27-28.

The Examiner objected to the use of the word "means" in the abstract.

The Examiner rejected Claims 16, 18, and 19 under 35 U.S.C. 103(a) as being unpatentable over Lindemann (U.S. Pat. No. 4,677,971) in view of Hwang (U.S. Pat. No. 5,259,679) or Wenrich (U.S. Pat. No. 4,789,145).

The Examiner objected to Claims 17 and 20-26 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Specification:

The Examiner objected to the use of the word "means" in the abstract. The Applicant has accordingly amended the abstract, as shown above, to delete references to the phrase "biasing means" and replacing them with references to "biasing component". The Applicant asserts that no new matter has been added thereby.

Claim Rejections — 35 U.S.C. § 103(a):

The Examiner has rejected Claims 16, 18, and 19 under 35 U.S.C. 103(a) as being unpatentable over Lindemann (U.S. Pat. No. 4,677,971) in view of Hwang (U.S. Pat. No. 5,259,679) or Wenrich (U.S. Pat. No. 4,789,145). The Examiner admits that the disclosure of Lindemann "lacks the coil being a plurality of adjoining coils" but that either Hwang or Wenrich discloses a plurality of adjoining coils (see Figs. 1-6 of Hwang, or see Figs. 2-5 of Wenrich.)

The Applicant notes that although Lindemann teaches that the coil permits "relative movement between the handpiece 27 and the forearmpiece 23" (Lindemann, col. 4, lines

62-64), there is no motivation taught in the disclosure of Lindemann to suggest that increasing the number of coils would have any beneficial effect. The Applicant notes in his specification the following:

The biasing component models the movement of the carpal/metacarpal and distal forearm/carpal joints by employing a unique and innovative tensioning arrangement. (Applicant's specification, pg. 13, lines 14-17)

...

It has been observed in practice that there is a change is [sic.] distance between the metacarpals and the distal ulna-radius during flexion and extension of the hand. This change of distance results in an elliptical path being followed by the hand during its range of motion from flexion to extension. Furthermore, a differential motion has been observed during supination and pronation between the distal and proximal areas of the forearm it is desirable in any dynamic splint design to mirror these kinematics to that a proper dorsal force can be applied by the splint appliance to resist volar glide. (Applicant's specification, pg. 18, lines 25-26 through pg. 19, lines 1-9)

...

The spring loops 206 are formed and positioned along the formed wire 200 so that they are located laterally on the ulnar side of the ulnar radial/metacarpal joint and the intra-metacarpal joint and are not covered by distal strap 170. It is believed that each spring loop 206 models the action of the corresponding joint. This double spring arrangement has been found to provide sufficient proximal-distal tolerance to accommodate changing distance between the metacarpals and the distal ulna-radius during flexion and extension of the hand, and thus prevents binding of the palmar component ... (Applicant's specification, pg. 25, lines 9-19)

In the Applicant's disclosure, the addition of multiple adjacent coils as shown in the figures thus results in better tracking of the hand movements as the wrist shortens and lengthens during flexion and extension. While the Examiner may cite Lindemann for the proposition that the coil permits "relative movement between the handpiece 27 and the forearmpiece 23", Lindemann only relies on a single coil arrangement. The lengthening and shortening of the wrist as observed by the Applicant is not readily available in the literature and is thus a new, novel, and unexpected observation that is not universally documented in the physical therapist's art or the art of orthopedic or orthotic appliances. The Applicant has provided a biasing component that allows the palm and the forearm components, which are

coupled to their respective physical counterparts, to track this novel motion with a “biasing component formed of a continuous wire with a supporting end and a torquing end, the torquing end coupled to the palmar component and having a plurality of adjoining coils formed along its length” (Claim 16, lines 5-8). This observation and result is not motivated, suggested, or taught by the disclosure of Lindemann.

Furthermore, both disclosures of both Wenrich and Hwang are directed to non-analogous art. The disclosure of Wenrich is for “a spring for radially biasing a slidable vane in an air motor vane slot” and the disclosure of Hwang is for a V-shaped spring system for a ribbon cartridge, neither of which pertains to the art of orthotic devices. Neither the disclosures of Wenrich nor Hwang would necessarily be known by a skilled practitioner of physical therapy or a person skilled in the art of orthopedic or orthotic appliances, and combining them is not suggested, motivated, or taught by Lindemann.

It is well settled that in order for references to be properly combined, there must be a teaching in at least one of the references to suggest that the disclosure of any of the other references could be modified to produce the Applicants' claimed invention. ACS Hospital System, Inc. v. Montefiore Hospital et al., 221 U.S.P.Q. 929 (Fed. Cir. 1984); Orthopedic Equip. Co. v. U.S., 217 U.S.P.Q. 193 (Fed. Cir. 1983). Additionally, absent some suggestion or incentive, the teachings of references may not be combined. ACS, supra, 221 U.S.P.Q. 933, In re Rinehart, 531 F. 2d 1048, 189 U.S.P.Q. 143 (C.C.P.A. 1976). Therefore, the Applicant respectfully suggests that the Examiner has not met the burden of a *prima facie* showing for a rejection under 35 U.S.C. §103(a).

If Applicant's Claim 16 is allowable, then Claims 17-26 should all be allowable since they would then depend upon an allowable claim.

Allowable Subject Matter:

Claims 1-15 and 27-28 were allowed, for which the Applicant thanks the Examiner. Claims 17 and 20-26 were objected to as being dependent upon a rejected base claim, but are now should be allowable if Claim 16 is found to be allowable.

Conclusion:

Reconsideration of the Examiner's rejections and objections with respect to Claims 16-26 and subsequent allowance of claims 16-26 is respectfully requested. In the event the examiner wishes to discuss any aspect of this response, please contact the attorney at the telephone number identified below.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

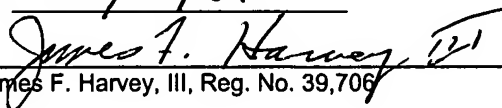
Respectfully submitted,

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